

IN THE CLAIMS

1-16. (canceled)

17. (previously presented) In a combination of a self-locking bolt fastening a lockable member, the improvements of the self-locking bolt comprising:

a head having a locking function; and

a threaded part extending from the head and provided with an external thread of a pitch P, the external thread being such as to mate with an internal thread of the lockable member;

the locking function consisting of n locking projections at equal angular intervals on a bearing surface of the head,

the locking projections being separated from one another by planar portions of the bearing surface,

heights of the locking projections from the bearing surface increasing gradually in a direction opposite a fastening direction in which the head is rotated for the fastening to maximum heights,

edges at the maximum heights,

the heights of the locking projections decreasing asymmetrically steeply as compared to the increasing gradually from the edges in the direction opposite the fastening direction,

the maximum heights of the edges being nearly equal to or less than P/n ,

a total area of the planar portions being larger than a total planar projected area of the locking projections, and

the self-locking bolt having a small diameter not larger than 6 mm,
wherein the locking projections sink fully into the lockable member for the locking function.

18. (currently amended) In a combination of a self-locking bolt fastening a lockable member, the improvements of the self-locking bolt comprising:

a head having a locking function; and

a cylindrical threaded part extending from the head and provided with an external thread of a pitch P for mating with an internal thread of the lockable member;

the locking function consisting of n locking recesses at equal angular intervals in a bearing surface of the head,

the locking recesses being separated from one another by planar portions of the bearing surface,

depths of the locking recesses from the bearing surface decreasing gradually in a direction opposite a fastening direction in which the head is rotated for the fastening to minimum depths,

edges at joints of end walls of the locking recesses at positions of maximum depths from the bearing surface, the end walls extending asymmetrically steeply to the bearing surface as compared to the decreasing gradually wherein, when the bearing surface contacts and compresses the lockable member, the edges function so that a portion of the lockable member is forced to bulge into at least one of the locking recesses in a small protrusion as though a locking protrusion had sunk into the lockable member,

a total area of the planar portions being larger than a total planar projected area of the locking projections recesses, and

the self-locking bolt having a small diameter not larger than 6 mm.

19. (original) The self-locking bolt according to claim 17, wherein the locking projections are formed in a peripheral region of the bearing surface of the head.

20. (original) The self-locking bolt according to claim 18, wherein the locking recesses are formed in a peripheral regions of the bearing surface of the head.

21. (original) The self-locking bolt according to claim 17, wherein the locking projections extend from a circumference of the head to the threaded part.

22. (original) The self-locking bolt according to claim 18, wherein the locking recesses extend from a circumference of the head to the threaded part.

23. (canceled)